



Mike Hsin:

A fully committed software engineer with joy and passion

Fun Facts About Me



01

I've lived in many places.

I was born in Taiwan, but I've live in Hong Kong, China, Canada, and the United Kingdom.



02

I love cats!

I have two cats and they are both Ragdolls, but they live in Canada with my brother now.



03

I've performed in Peaky Blinder.

I've got a chance to go on the stage of Peaky Blinder's immersive musical show in Camden Town, London.

Educational Background

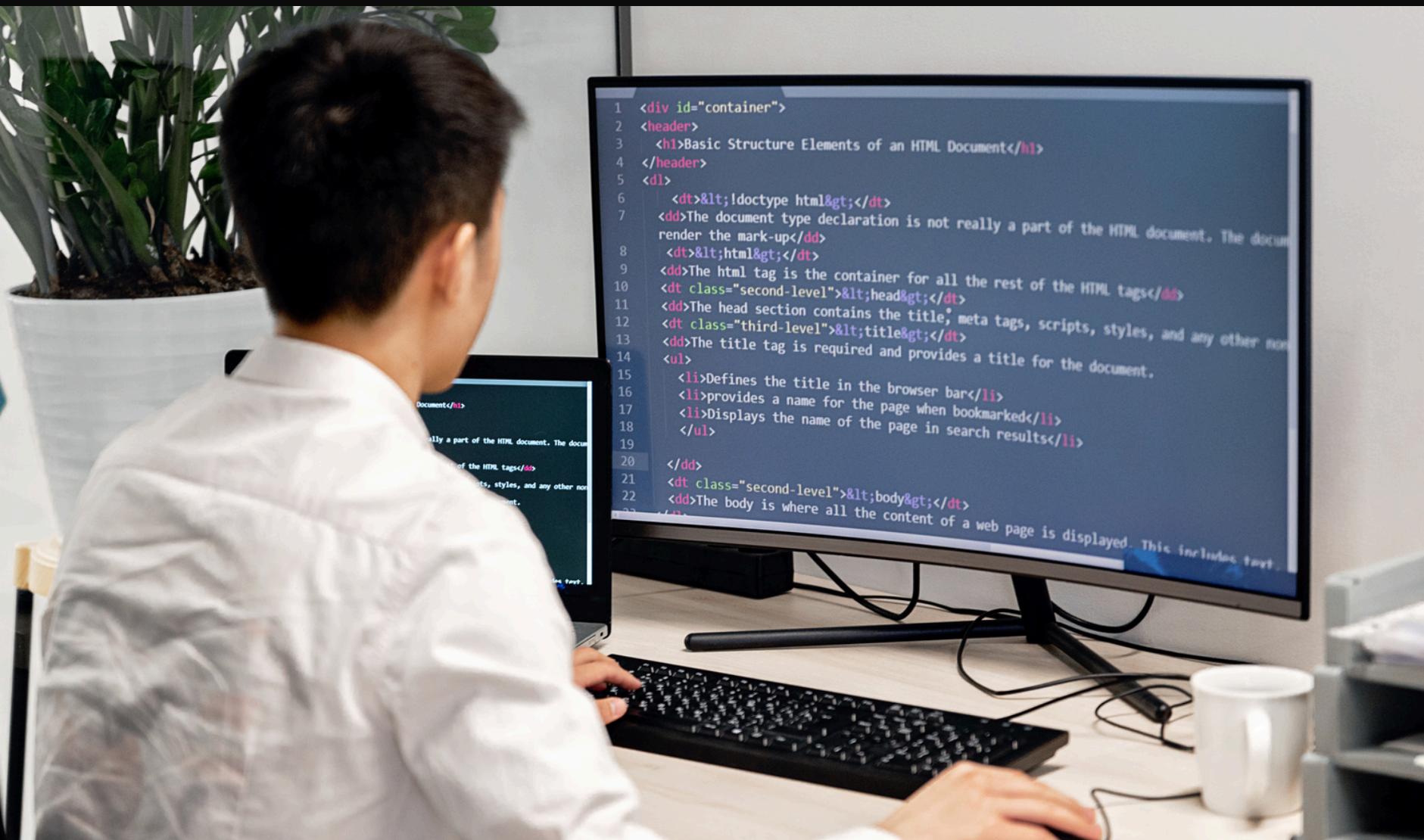
I am a M.Sc. grad from at University College London(**UCL**) taking up a degree in **Software Systems Engineer**.

UNIVERSITY COLLEGE LONDON



Technical Skills

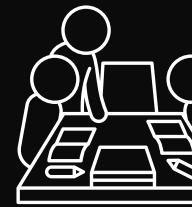
Coding and Data Engineering



```
1 <div id="container">
2 <header>
3   <h1>Basic Structure Elements of an HTML Document</h1>
4 </header>
5 <dl>
6   <dt>&lt;!DOCTYPE html&gt;</dt>
7   <dd>The document type declaration is not really a part of the HTML document. The document type declaration tells the browser what kind of document it is. It's like a road map for the browser.
8   <dt>&lt;html&gt;</dt>
9   <dd>The html tag is the container for all the rest of the HTML tags</dd>
10  <dt class="second-level">&lt;head&gt;</dt>
11   <dd>The head section contains the title, meta tags, scripts, styles, and any other non-visible content of the page.
12   <dt class="third-level">&lt;title&gt;</dt>
13   <dd>The title tag is required and provides a title for the document.
14   <ul>
15     <li>Defines the title in the browser bar</li>
16     <li>Provides a name for the page when bookmarked</li>
17     <li>Displays the name of the page in search results</li>
18   </ul>
19 </dd>
20 <dt class="second-level">&lt;body&gt;</dt>
21 <dd>The body is where all the content of a web page is displayed. This includes text, images, and other media.
```



Experiences



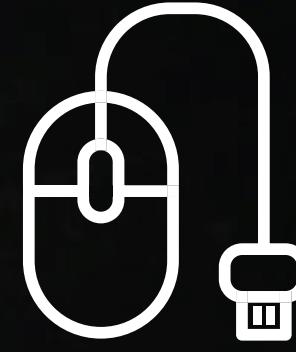
4 Internship



More than 10 side projects



Over 30 academic project

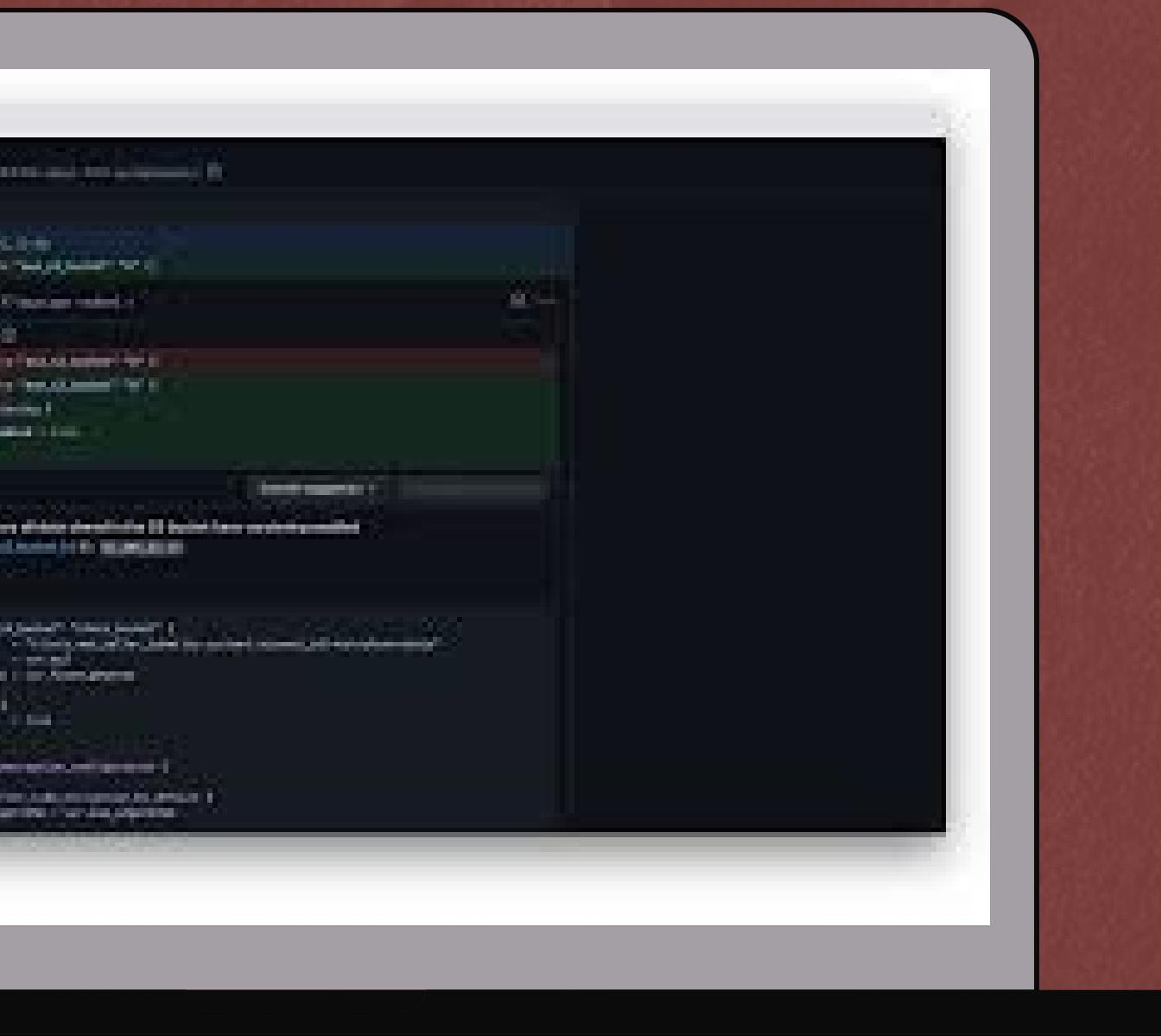


Past Project Experience

Software Development

Bloomberg: B-Assist

Source: Bloomberg APR



B-Assist: Enhancing Code Review with APR

- + B-Assist as a tool developed to integrate Automated Program Repair (APR) fixes into the GitHub code review process.
- + To automate the application of APR fixes in GitHub pull requests to improve DevX (Developer Experience).
- + My role: From initial client consultations and research through to design collaboration, leading both unit and integration testing, and spearheading the documentation.



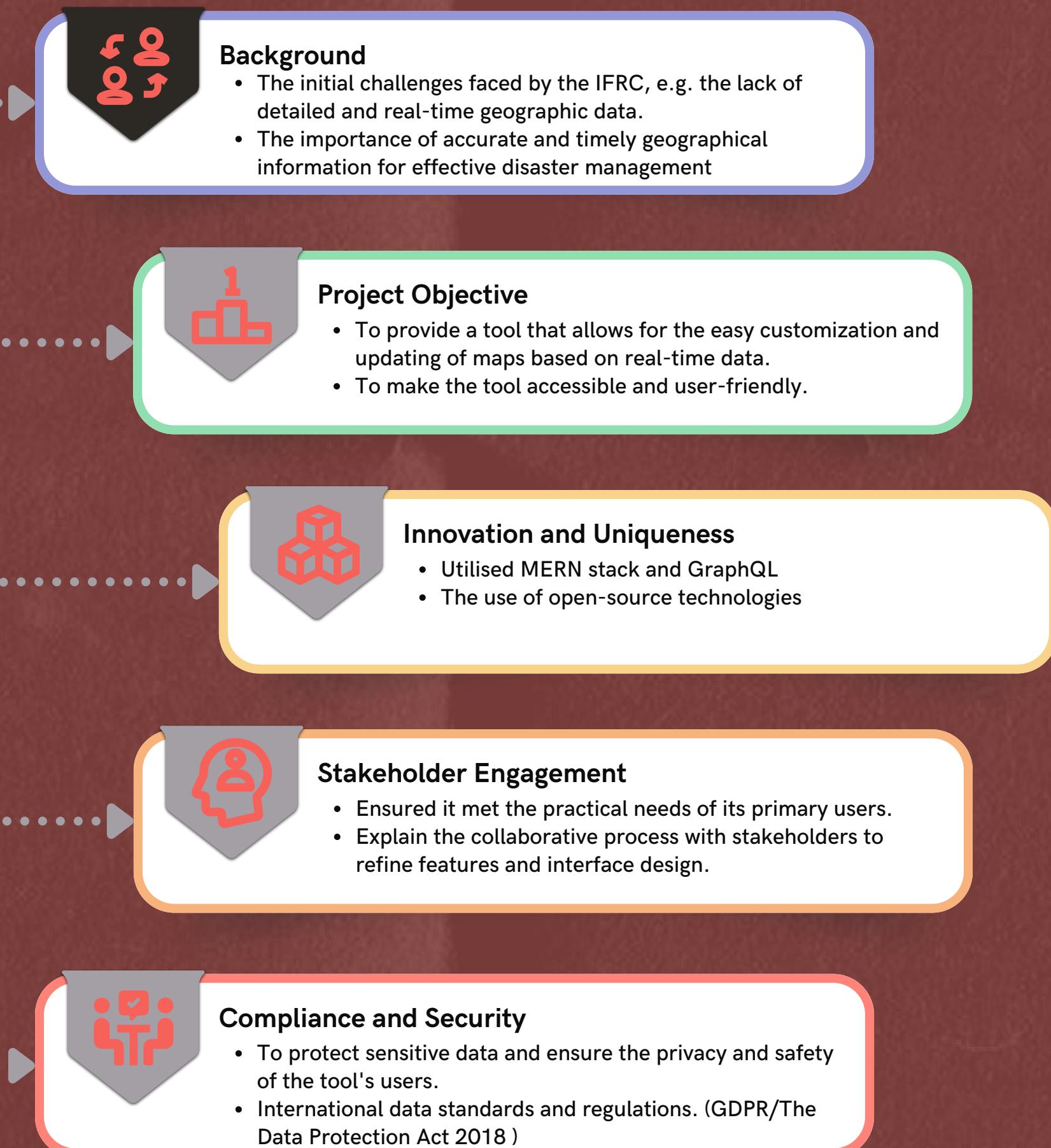
Impact of B-Assist

- ✓ Key Features: GitHub Suggested Changes integration, automated suggestions, and configurability
- ✓ Results: **98%** test coverage, **94%** line coverage, **100%** client satisfaction rate. Supported the adoption of the tool for **8,000** developers
- ✓ Skill Developed: Python, testing, using GitHub APIs, teamwork, and problem-solving under constraints



IFRC GO Make Map

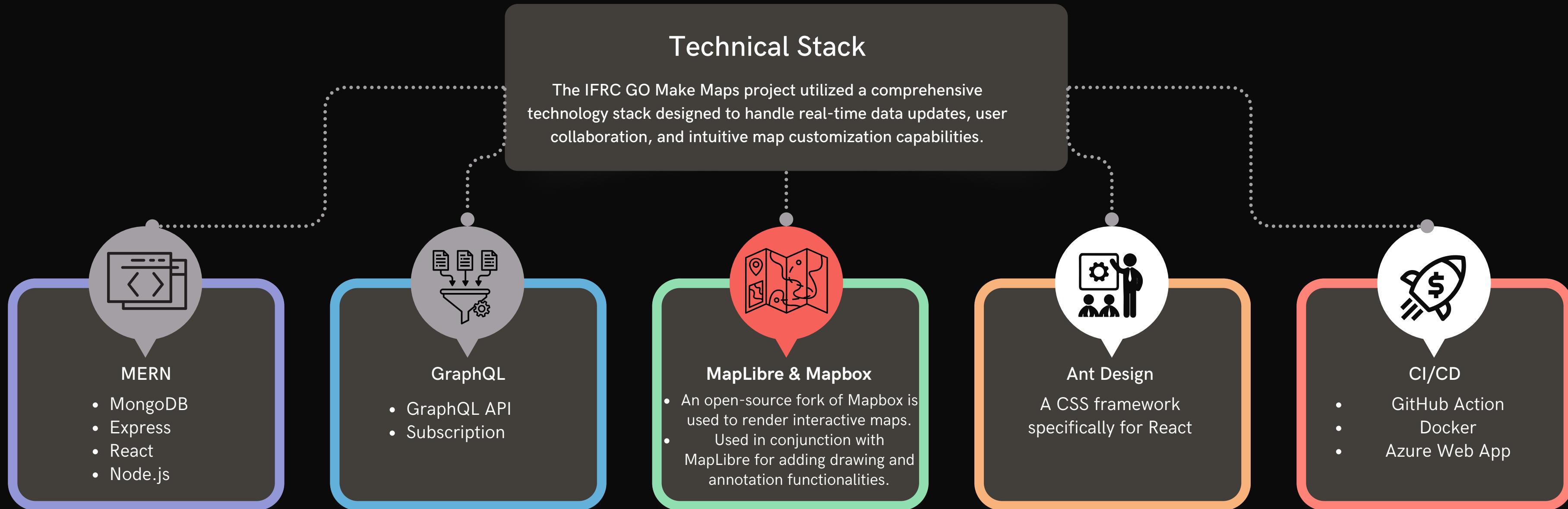
- **Project Overview:** Help IFRC to improve crisis response via detailed, customizable maps.
- **Technical Stack:** Utilized the MERN stack and GraphQL API for real-time data updates and efficient data management.



[IFRC Go Make Map Demo Video](#)

Implementation and Impact

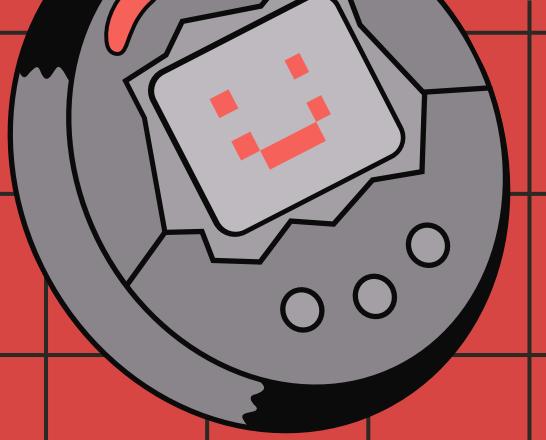
- ✓ In general, it's **1.5x** faster on core feature load.
- ✓ Improved the application responsiveness by **300%+** over competitors under a 2G Network.
- ✓ Code Coverage over **90%** for the core components (Data models, schema, and resolvers)
- ✓ Driven the project's inclusion into [the IFRC's official open-source repository](#).



Intern Project - Embedded System

Nova Scotia Community College

Instructed by Mr. Todd Verge

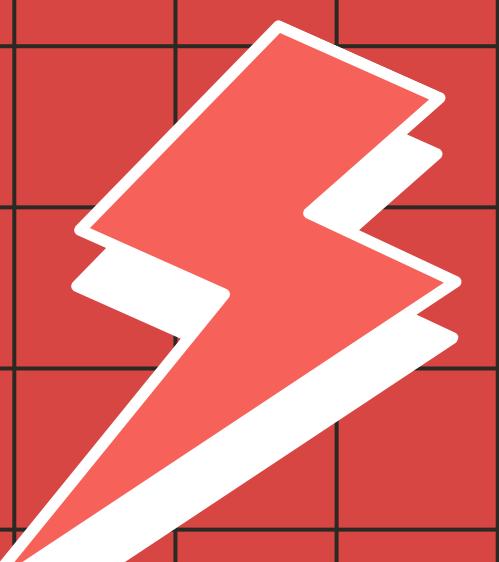


Developed a GPS tracker using Arduino: Handled hardware selection, circuit design, and software development in C++. #1 team successfully retrieved the device post-release.

R2D2 Robot Renovation: Utilized Raspberry Pi and 3D printing to enhance the robot's capabilities and aesthetics.

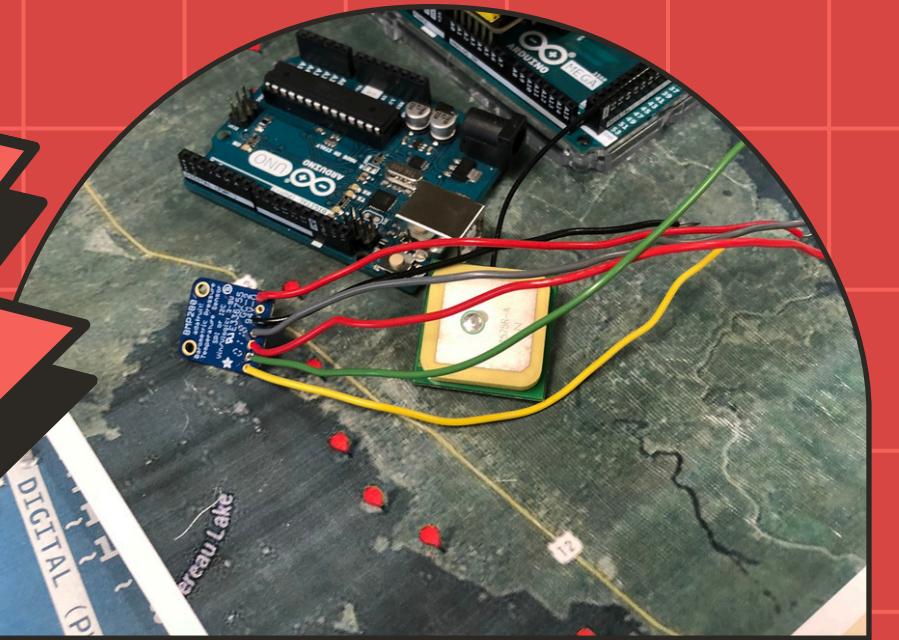
Virtual Doctor Renovation (Part 1): Redesigned a \$ 250,000 medical robot from a TCL-based UDP/IP to a Python-controlled TCP/IP protocol.

Virtual Doctor Renovation (Part 2): Implemented a Bluetooth controller for easier operation.



Demonstration

Let's take a tour: Visual Showcases of Innovation!



Arduino Design and Demo

An insightful showcase of the Arduino circuit design, alongside a practical demonstration of the Arduino board.



Launch Day Snapshot

A celebratory snapshot from the launch day, showing the product owner with the upgraded R2D2 robot.



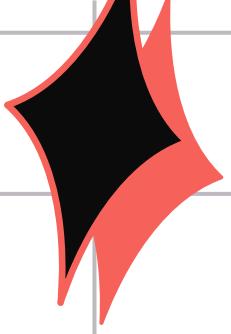
Virtual Doctor

A doctor evaluates the functionality of the medical robot, ensuring its effectiveness for remote patient consultations.

Unexpected Gains: Surprising Skills Acquired Along the Way



Hardware Design and Integration: Gained experience in designing and integrating electronic components and systems.



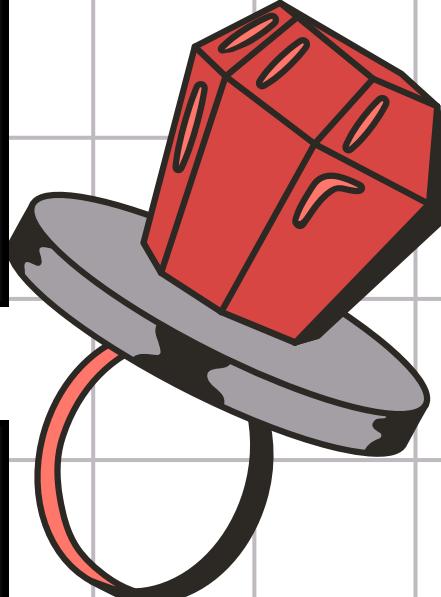
Software Development: Enhanced proficiency in C++ and Python for embedded systems and network communication.



Network Protocols: Advanced knowledge in network configuration and optimization, specifically transitioning to TCP/IP protocols.



Innovative Problem Solving: Tackled unique challenges in healthcare technology, improving usability and functionality.



Competition & Award

Outside of school, I actively participate in **competitions** and **community volunteer work**, work on **personal side projects**, and pursue **online courses**. This diverse involvement enhances my technical skills and contributes to my personal and professional growth.

01.

Halifax Housing Crisis Hackathon, Shiftkey Lab, Dalhousie University (November 2021)

- Achievement: Led a seven-member team to victory by developing an innovative web prototype using Angular.
- Award: Secured the **#1** spot for innovative strategy.

02.

IBM Call-for-Code, IBM, Canada (June 2020)

- Project: Developed a mobile app for efficient flood response, utilizing React Native and Firebase for real-time data synchronization.
- Achievement: Boosted team efficiency, ranking in the top **10%** of participants.

03.

Oracle Academy: Java Foundation Certification (June 2019)

- Certification: Completed the Java Foundation course.



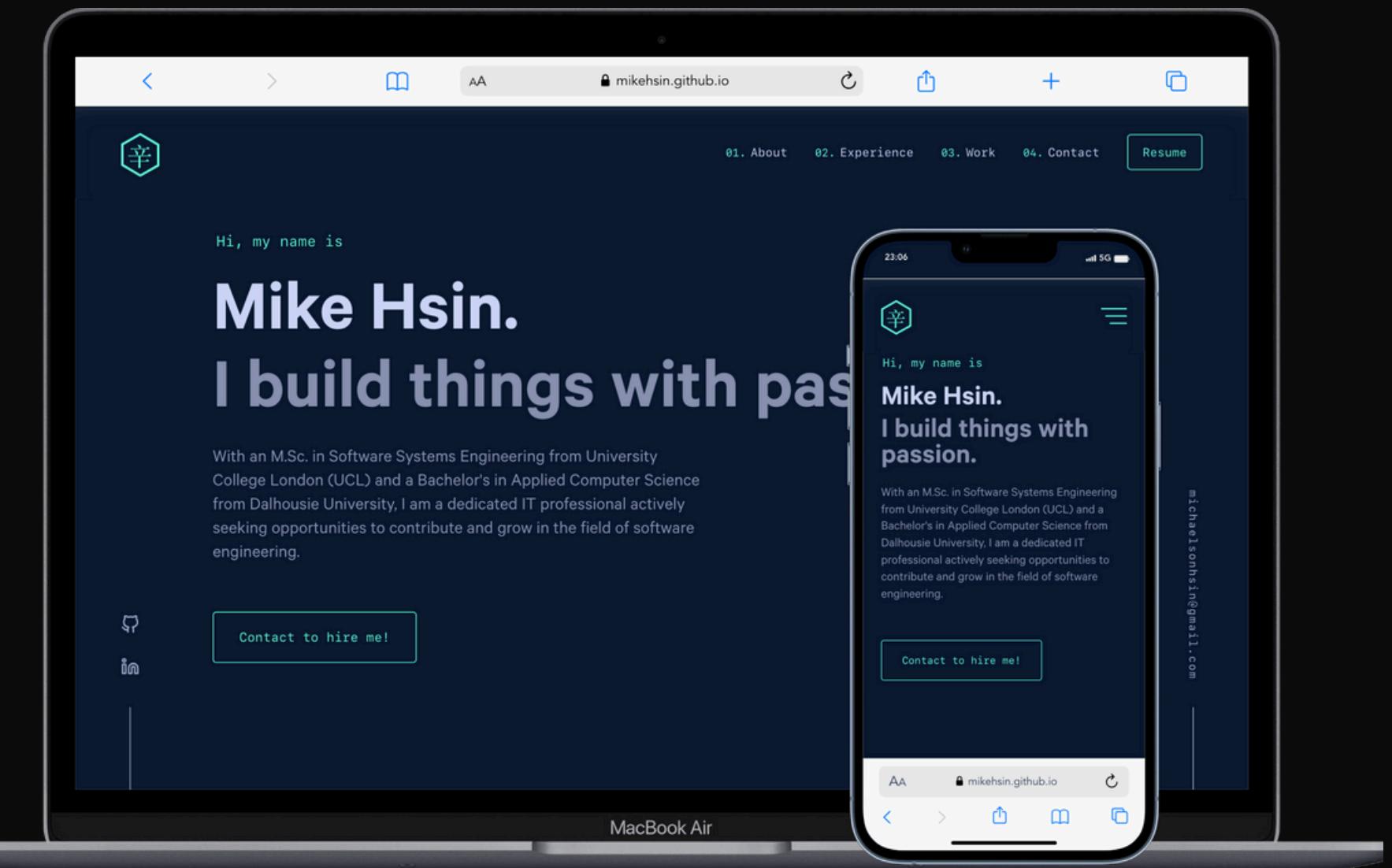
What about
now?



For now, I am actively looking for
a software engineer position.

I aim to expand my skills in software engineering
and apply them to real-life business solutions.

Other than job hunting ...



Providing digital solutions to small business owners.



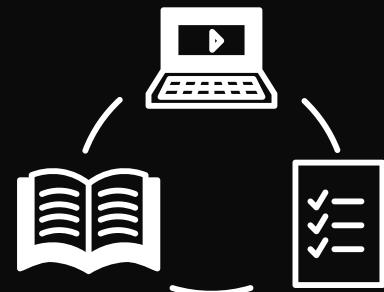
Building a personal portfolio website.



Doing side projects to improve myself.

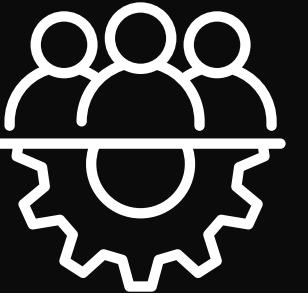
Future Goals

Where do I see myself in five years ...



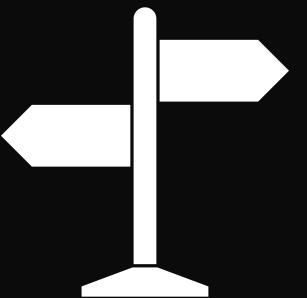
Continued Learning

Commit to lifelong learning by advancing my technical expertise.



Innovation and Leadership

Aspire to lead innovative projects. Expand my involvement in community-oriented projects.



Career Advancement

Progress into roles that allow me to influence and mentor others while pushing the boundaries of what's possible in technology and software development.



Thank you!